To: Saari, Christopher A - DNR[Christopher.Saari@wisconsin.gov]; Dave Larsen[dlarsen@reiengineering.com]; KHanson@ldftribe.com[KHanson@ldftribe.com]

Cc: Kamke, Sherry[Kamke.Sherry@epa.gov]; Kady, Thomas[Kady.Thomas@epa.gov];

Dee.allen@ldftribe.com[Dee.allen@ldftribe.com]

From: Egan, Robert

Sent: Wed 11/9/2016 8:06:59 PM

Subject: RE: Recommendations for additional well locations at the Tower Standard site

I'm OK with going ahead if others feel the same.

Bob Egan

Corrective Action Manager

Underground Storage Tanks Section

RCRA Branch

EPA Region 5

(312) 886-6212

(312) 692-2911 (fax)

From: Saari, Christopher A - DNR [mailto:Christopher.Saari@wisconsin.gov]

Sent: Wednesday, November 09, 2016 1:37 PM

To: Dave Larsen ; KHanson@ldftribe.com; Egan, Robert cegan.robert@epa.gov

Cc: Kamke, Sherry <Kamke.Sherry@epa.gov>; Kady, Thomas <Kady.Thomas@epa.gov>;

Dee.allen@ldftribe.com

Subject: RE: Recommendations for additional well locations at the Tower Standard site

I am not available tomorrow or Friday. I have provided my thoughts on the wells already, so please have the call without me if you find a time that works for everyone else.

We are committed to service excellence.

Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Chris Saari

Phone: (715) 685-2920

Christopher.Saari@Wi.gov

From: Dave Larsen [mailto:dlarsen@reiengineering.com]

Sent: Wednesday, November 09, 2016 1:24 PM

To: Hanson, Kristen; Saari, Christopher A - DNR; Egan, Robert

Cc: Kamke, Sherry; Kady, Thomas; Allen, Dee

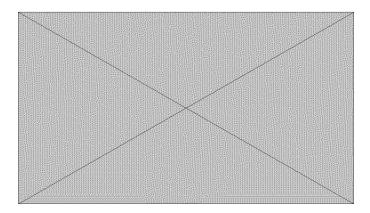
Subject: RE: Recommendations for additional well locations at the Tower Standard site

If we can schedule the discussion for 2-3 pm tomorrow, I should be able to make it.

Thank you,

David N. Larsen P.G

Hydrogeologist / Professional Geologist



Connect with us:

Confidentiality Notice: This message is intended for the recipient only. If you have received this e-mail in error please disregard.

From: Hanson, Kristen [mailto:KHanson@ldftribe.com]

Sent: Wednesday, November 09, 2016 1:12 PM

To: Saari, Christopher A - DNR < <u>Christopher.Saari@wisconsin.gov</u>>; Dave Larsen

<<u>dlarsen@reiengineering.com</u>>; Egan, Robert <<u>egan.robert@epa.gov</u>>

Cc: Kamke, Sherry < Kamke. Sherry@epa.gov >; Kady, Thomas < Kady. Thomas@epa.gov >;

Allen, Dee <dee.allen@ldftribe.com>

Subject: RE: Recommendations for additional well locations at the Tower Standard site

Good Afternoon,

I am not available this afternoon. I am available tomorrow after 2 pm or next week.

Kristen

From: Saari, Christopher A - DNR [mailto:Christopher.Saari@wisconsin.gov]

Sent: Wednesday, November 09, 2016 12:58 PM **To:** Dave Larsen; Egan, Robert; Hanson, Kristen

Cc: Kamke, Sherry; Kady, Thomas

Subject: RE: Recommendations for additional well locations at the Tower Standard site

I'm tied up on a call from 2 till 3 but otherwise open.

We are committed to service excellence.

Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Chris Saari

Phone: (715) 685-2920

Christopher.Saari@Wi.gov

From: Dave Larsen [mailto:dlarsen@reiengineering.com]

Sent: Wednesday, November 09, 2016 11:27 AM

To: Egan, Robert; Saari, Christopher A - DNR; KHanson@ldftribe.com

Cc: Kamke, Sherry; Kady, Thomas; Robinson, John H - DNR

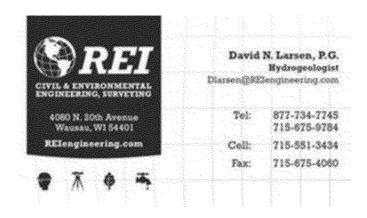
Subject: RE: Recommendations for additional well locations at the Tower Standard site

Just following up to see if there is a possibility of installing the remaining perimeter wells at Tower yet this year. Bob stated that he should be available to discuss well locations and construction details today, I also should be in the office all day. Prompt response is appreciated.

Thank you,

David N. Larsen P.G

Hydrogeologist / Professional Geologist



Connect with us: In If Q*

Confidentiality Notice: This message is intended for the recipient only. If you have received this e-mail in error please disregard.

From: Egan, Robert [mailto:egan.robert@epa.gov]

Sent: Friday, November 04, 2016 1:40 PM

To: Dave Larsen < dlarsen@reiengineering.com >; Saari, Christopher A - DNR

; KHanson@ldftribe.com

Cc: Kamke, Sherry < Kamke. Sherry@epa.gov >; Kady, Thomas < Kady. Thomas@epa.gov >;

Robinson, John H - DNR < John.Robinson@wisconsin.gov >

Subject: RE: Recommendations for additional well locations at the Tower Standard site

Thanks for getting back to everyone.

We have not yet heard back from Kristen about her preferences on locations. I would like to discuss ideas about locations if everyone is available and ready.

I am available Monday through Wednesday next week.

Bob Egan

Corrective Action Manager

Underground Storage Tanks Section

RCRA Branch

EPA Region 5

(312) 886-6212

(312) 692-2911 (fax)

From: Dave Larsen [mailto:dlarsen@reiengineering.com]

Sent: Friday, November 04, 2016 1:22 PM

To: Egan, Robert < egan.robert@epa.gov >; Saari, Christopher A - DNR

< <u>Christopher.Saari@wisconsin.gov</u>>; <u>KHanson@ldftribe.com</u>

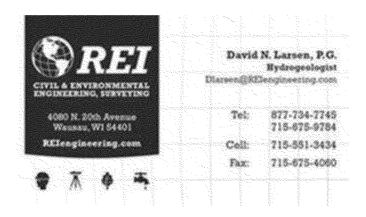
Cc: Kamke, Sherry < Kamke. Sherry@epa.gov >; Kady, Thomas < Kady. Thomas@epa.gov > Subject: RE: Recommendations for additional well locations at the Tower Standard site

Sounds good Bob and I do appreciate you taking the lead and providing a recommendation we can work from. Could we possibly have further discussion next week to firm up final locations, depths and screen lengths along with construction preferences? This will allow me to reach out to drilling firms to determine interest/availability and we may be able to get the wells installed yet this year.

Thank you,

David N. Larsen P.G

Hydrogeologist / Professional Geologist



Connect with us: In I Q*

Confidentiality Notice: This message is intended for the recipient only. If you have received this e-mail in error please disregard.

From: Egan, Robert [mailto:egan.robert@epa.gov]

Sent: Friday, November 04, 2016 12:08 PM

To: Dave Larsen < dlarsen@reiengineering.com >; Saari, Christopher A - DNR

<a href="mailto: KHanson@ldftribe.com

Cc: Kamke, Sherry < <u>Kamke.Sherry@epa.gov</u>>; Kady, Thomas < <u>Kady.Thomas@epa.gov</u>> **Subject:** RE: Recommendations for additional well locations at the Tower Standard site

Dave,

Thanks for the information. My locations were just to get the discussion started. I remember there also being a VAS location west of the 16 well nest and that the plume seems narrow in that area. I think we can all talk about whether there is a need to have wells near the edge of the plume. With the medium and deep wells at 16 being highly contaminated we would normally put wells outside this area but there is previous information in that area that shows that contaminant levels quickly drop off to the west.

Bob

Bob Egan

Corrective Action Manager

Underground Storage Tanks Section

RCRA Branch

EPA Region 5

(312) 886-6212

(312) 692-2911 (fax)

From: Dave Larsen [mailto:dlarsen@reiengineering.com]

Sent: Friday, November 04, 2016 9:18 AM

To: Saari, Christopher A - DNR < <u>Christopher.Saari@wisconsin.gov</u>>; Egan, Robert < egan.robert@epa.gov>; KHanson@ldftribe.com

Subject: RE: Recommendations for additional well locations at the Tower Standard site

Bob, I attached figures depicting locations of the MW13 well nest from the initial investigation along with summary lab tables. Is this sufficient to close the data gap west of MW16? I know the data is 10+ years old, but may be useful. The shallow well (13s) was screened from 33-28' and the deep (13d) was screened from 50-45'.

Assumed well depths:

Shallow wells: 15' depth with 10' screen lengths

Mid-Range: 40' depth with 5' screen

Deep: 60' depth with 5' screen. Well location #4 – well to be screened from 55-50' based on MIP data.

#4 location may need to be drilled with an ATV rig – I will need to discuss with drillers.

All PZ's to be blind drilled and grouted and MW's are to be logged.

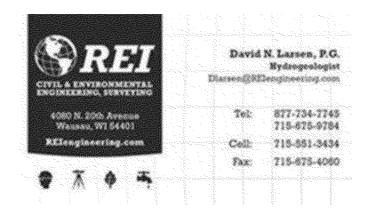
Any thoughts on flushmount versus stick-up wells?

Once we agree I will prepare cost approval request and hopefully schedule work.

Thank you,

David N. Larsen P.G

Hydrogeologist / Professional Geologist



Connect with us: In If R*

Confidentiality Notice: This message is intended for the recipient only. If you have received this e-mail in error please disregard.

From: Saari, Christopher A - DNR [mailto:Christopher.Saari@wisconsin.gov]

Sent: Thursday, November 03, 2016 4:25 PM

To: Egan, Robert < egan.robert@epa.gov >; KHanson@ldftribe.com; Dave Larsen

<<u>dlarsen@reiengineering.com</u>>

Cc: Kamke, Sherry < <u>Kamke.Sherry@epa.gov</u>>; Kady, Thomas < <u>Kady.Thomas@epa.gov</u>> **Subject:** RE: Recommendations for additional well locations at the Tower Standard site

I would concur with these suggestions, and would add a shallow well to the nest proposed between MIP3 and MIP13, for data consistency purposes.

We are committed to service excellence.

Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Chris Saari

Phone: (715) 685-2920
Christopher.Saari@Wi.gov
From: Egan, Robert [mailto:egan.robert@epa.gov] Sent: Wednesday, November 02, 2016 8:08 AM
To: KHanson@ldftribe.com; Saari, Christopher A - DNR; Dave Larsen Cc: Kamke, Sherry; Kady, Thomas Subjects Becommendations for additional well leastings at the Towar Standard site.
Subject: Recommendations for additional well locations at the Tower Standard site
A11,
Here are some suggestions for locations to fill in gaps in the well network:
and the second suggestions and anticolor to an
1. A background well nest near Highway 70 with shallow and mid-depth range wells.
2. Shallow and mid-depth range wells at a location south and east (about 30-40 feet) of the
MIP2 location.
3. A location between MIP13 and MIP3 where contamination is at depth. Mid-range and deeper wells.
4. If access is possible, wells near the MIP14 location. Shallow, mid-depth and deep.
5. A location somewhere to the west or northwest of the MW16 wells to try to find the edge of the plume in that area. Shallow, mid-depth and deep.
Bob
Bob Egan

Corrective Action Manager

Underground Storage Tanks Section

RCRA Branch

EPA Region 5

(312) 886-6212

(312) 692-2911 (fax)